

Externally Applied RF for Pulmonary Vein Isolation

ABSTRACT OF THE DISCLOSURE

5 A resonant circuit is incorporated in a stent, which im-
plantable in a pulmonary vein using known cardiac catheteriza-
tion techniques. When an external RF field is generated at the
resonant frequency of the stent, RF energy is re-radiated by
the stent toward electroconductive tissue in the wall of the
10 pulmonary vein, and produces a circumferential conduction
block. The stent can be made of biodegradable materials, so
that it eventually is resorbed. Following an ablation pro-
cedure, the stent may be left *in situ*. Repeated ablation can be
performed using the inserted stent until it has been determined
15 that the desired lesions have been formed. Furthermore, the
same stent can potentially be used even years after being in-
serted should the treated arrhythmia reoccur or a new arrhyth-
mia develop, thereby possibly obviating the need for an inva-
sive procedure at that future time.